2006-08 ENGINE PERFORMANCE

Catalytic Converter System (K20Z3) - Civic (All Except Si)

COMPONENT LOCATION INDEX

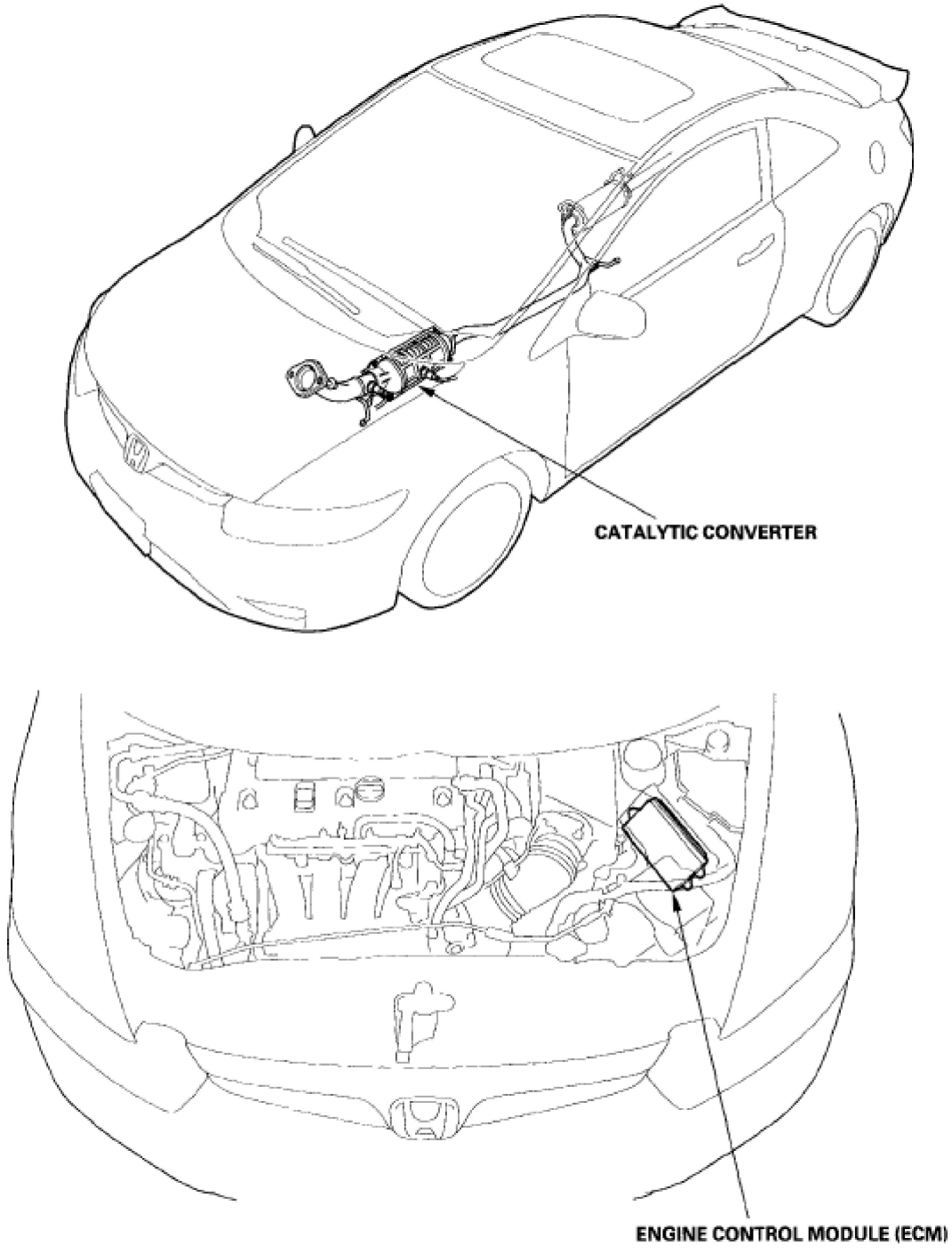

Fig. 1: Identifying Catalytic Converter System Component Location
Courtesy of AMERICAN HONDA MOTOR CO., INC.

DTC TROUBLESHOOTING

DTC P0420: CATALYST SYSTEM EFFICIENCY BELOW THRESHOLD

NOTE:

- **Before you troubleshoot, record all freeze data and any on-board snapshot, and review the general troubleshooting information (see GENERAL TROUBLESHOOTING INFORMATION).**
- **If some of the DTCs listed below are stored at the same time as DTC P0420, troubleshoot them first, then recheck for DTC P0420.**

  P0137, P0138: Secondary H02S (Sensor 2) P0141: Secondary H02S (Sensor 2) heater

- **Poor quality fuel may cause this DTC.**

1. Turn the ignition switch ON (II).
2. Clear the DTC with the HDS.
3. Start the engine. Hold the engine speed at 3,000 rpm without load (in neutral) until the radiator fan comes on, then let it idle.
4. Test-drive under these conditions:
   - Engine coolant temperature (ECT SENSOR 1) above 158 °F (70 °C)
   - Transmission in 5th gear
   - Vehicle speed between 45-75 mph (72-120 km/h) for 5 minutes or more with cruise control set
   - '06 model: Maintain the vehicle speed at 55 mph (88 km/h) for 5 minutes or more with cruise control set

     '07 model: Maintain the vehicle speed at 55 mph (88 km/h) for 30 seconds or more
5. Monitor the OBD STATUS for DTC P0420 in the DTCs MENU with the HDS.

   Does the screen indicate EXECUTING?

YES -Go to step 6.

NO -If the screen indicates OUT OF CONDITION, go to step 4 and recheck. If the screen indicates PASSED, intermittent failure, the system is OK at this time. If the screen indicates FAILED, go to step 8.

6. Continue test driving until a result comes on.
7. Monitor the OBD STATUS for DTC P0420 in the DTCs MENU with the HDS.

   Does the screen indicate FAILED?

   YES -Go to step 8.

   NO -If the screen indicates PASSED, intermittent failure, the system is OK at this time. If the screen indicates EXECUTING, keep driving until a result comes on. If the screen indicates OUT OF CONDITION, go to step 4 and recheck.

8. Turn the ignition switch OFF.
9. Replace the TWC (see **CATALYTIC CONVERTER REMOVAL/INSTALLATION**).
10. Turn the ignition switch ON (II).
11. Reset the ECM with the HDS.
12. Do the ECM idle learn procedure (see **ECM IDLE LEARN PROCEDURE**).
13. Start the engine. Hold the engine speed at 3,000 rpm without load (in neutral) until the radiator fan comes on, then let it idle.
14. Test-drive for about 10 minutes, varying the vehicle speed.
15. Check the CATA MONITOR CONDITION in the DATA LIST with the HDS.

    Is the temperature OK?

    YES -Go to step 16.

    NO -Go to step 13 and recheck.

16. Test-drive under these conditions:
    - Engine coolant temperature (ECT SENSOR 1) above 158 °F (70 °C)
    - Transmission in 5th gear
    - '06 model: Vehicle speed at 55 mph (88 km/h) for 5 minutes

      '07 model: Vehicle speed at 55 mph (88 km/h) for 30 seconds or more
17. Monitor the OBD STATUS for DTC P0420 in the DTCs MENU with the HDS.

    Does the screen indicate EXECUTING?

    YES -Go to step 18.

    NO -Go to step 16 and recheck.
18. Continue test-driving until a result comes on.
19. Check for Temporary DTCs or DTCs with the HDS.

    Are any Temporary DTCs or DTCs indicated?

    YES -go to the indicated DTCs troubleshooting .

    NO -Go to step 20.
20. Monitor the OBD STATUS for DTC P0420 in the DTCs MENU with the HDS.

    Does the screen indicate PASSED?

    YES -Troubleshooting is complete.

    NO -If the screen indicates FAILED, check the fuel quality. If the screen indicates EXECUTING, keep driving until a result comes on. If the screen indicates OUT OF CONDITION, go to step 13 and recheck.

CATALYTIC CONVERTER REMOVAL/INSTALLATION

1. Remove the A/F sensor (sensor 1) (see **A/F SENSOR REPLACEMENT**).
2. Remove the secondary H02S (sensor 2) (see **A/F SENSOR REPLACEMENT**).
3. Remove the catalytic converter (A).

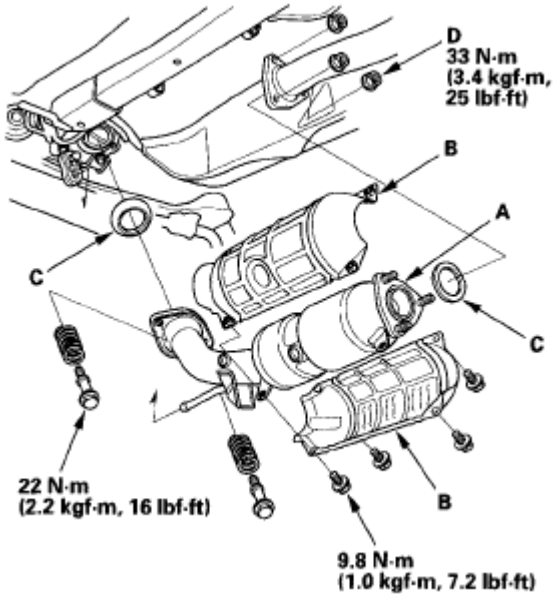

Fig. 2: Identifying Catalytic Converter, Converter Cover & Gaskets (With Torque Specifications)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

4. Remove the converter cover (B).
5. Install the parts in the reverse order of removal with new gaskets (C) and new self-locking nuts (D).